

*The Occultation.*

The first contact of the outer edge of ring A with the Moon's bright limb took place at  $16^h 47^m 55^s$  L.S.T. =  $14^h 55^m 55^s \cdot 6$  L.M.T. and that of the inner edge of ring B at  $16^h 48^m 8^s \cdot 6$  L.S.T. =  $14^h 56^m 9^s \cdot 2$  L.M.T. The preceding limb of the planet touched that of the Moon at  $16^h 48^m 19^s$  L.S.T. =  $14^h 56^m 19^s \cdot 6$  L.M.T. The globe of *Saturn* was dichotomised (as nearly as I could estimate) at  $16^h 48^m 33^s$  L.S.T. =  $14^h 56^m 33^s \cdot 5$  L.M.T. His following limb disappeared at  $16^h 49^m 1^s$  L.S.T. =  $14^h 57^m 1^s \cdot 4$  L.M.T. The inner edge of ring B was occulted at  $16^h 49^m 13^s$  L.S.T. =  $14^h 57^m 13^s \cdot 4$  L.M.T., and the last perceptible trace of the ring vanished at  $16^h 49^m 25^s$  L.S.T. =  $14^h 57^m 26^s \cdot 4$  L.M.T. Although very pale the planet was perfectly distinct, and passed behind the Moon's limb without wave, shake, or distortion.

At the reappearance of *Saturn* the first visible trace of the edge of the preceding ansa was caught sight of about  $17^h 57^m 19^s$  L.S.T. =  $16^h 5^m 8^s \cdot 3$  L.M.T., and at  $17^h 58^m 1^s$  L.S.T. =  $16^h 5^m 50^s \cdot 1$  L.M.T. the planet was *just* clear of the Moon's limb.

The emersion was very striking, from the exceeding sharpness of *Saturn*; the most delicate detail being perceptible, even in contact with the lunar limb. The crape ring C was seen most perfectly where the dark limb of the Moon crossed it. I never was more impressed with the absolute absence of a lunar atmosphere of any appreciable density than I was on this occasion.

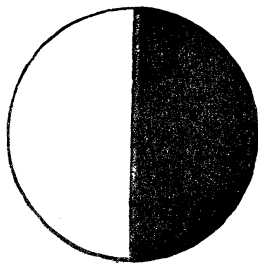
Forest Lodge, Maresfield, Sussex,  
May 13, 1870.

*Occultation of Saturn.* By C. G. Talmage, Esq.

The occultation of *Saturn* was well seen here: at sunset the sky was quite clear, and remained so to sunrise. *Saturn* was visible to the naked eye to within three minutes and a-half of the time of disappearance.

When I first looked at *Saturn*, at about  $13^h$ , no striking difference of colour from the Moon was visible, but by  $14^h$  the difference was quite perceptible, and at  $14^h 45^m$  it was most marked, the planet appearing of a yellow tint.

I had no difficulty whatever in observing both the disappearance and reappearance of *Titan*. To prevent the glare of the Moon I covered the eyepiece half over with silver foil, so that the eye was greatly relieved. The field was, therefore, of the following shape:—



The local mean times are as follows:—

*Mr. Joynson, Occultation of Saturn.*

Disappearance of <i>Titan</i>	=	<sup>h</sup> 14 <sup>m</sup> 49 <sup>s</sup> 18.97
First contact with ring		14 55 51.90
„ „ ball		14 56 15.84
Final disappearance of ball		14 56 57.73
„ „ ring		14 57 17.68
Reappearance of <i>Titan</i>		15 58 56.53
„ „ ring		16 4 31.63
„ „ ball		16 4 58.56
Ring clear of Moon	=	16 6 1.89

I used a power of 110 on the 10-inch refractor.

I believe, had I taken the precaution of getting out the positions of the faint satellites, I could have observed their occultations, as I saw several very faint objects occulted, both preceding and following *Saturn*, and the field was full of stars.

The position of the Observatory is—

Lat. 51° 34' 34" N.  
Long. 0<sup>h</sup> 0<sup>m</sup> 06.87 W.

*Mr. Barclay's Observatory, Leyton.*

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*Occultation of Saturn.* By John Joynson, Esq.

The occultation of *Saturn* by the Moon, on the 19th April last, was seen here as satisfactorily as could be expected, considering the low altitude of the planet. The sky was quite free from cloud at the disappearance, but at the reappearance there was just sufficient hazy cloud about the Moon to interfere with the correct observation of the exact time of the egress of the preceding edge of the ring.

The following were the times noted:—

Disappearance.

First contact of ring	<sup>h</sup> 14 <sup>m</sup> 52 <sup>s</sup> 52.7	G.M.T.
Inner ditto ditto	53 2.2	
First ditto of ball	53 22.1	
Last ditto ditto	53 39.6	
Inner ditto of ring	54 2.0	
Last ditto ditto	14 54 10.1	

Reappearance.

First appearance of ring.	Not noted, for hazy cloud.		
Inner edge	ditto	Not sure	ditto